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White Sulphur Springs

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WEST VIRGINIA.

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View of the
PHUR SPRINGS.

VIRGINIA

White Sulphur Springs,

WITH THE

ANALYSIS OF ITS WATERS,

THE DISEASES TO WHICH THEY ARE APPLICABLE,

AND SOME ACCOUNT OF

SOCIETY AND ITS AMUSEMENTS AT THE SPRINGS

BY

J. J. MOORMAN, M. D.

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White Sulphur Springs,

GREENBRIER COUNTY, WEST VIRGINIA.

A PAMPHLET for general circulation, adapted for a HAND-BOOK, to guide the distant stranger as to the *location* and *extent of accommodations* of the WHITE SULPHUR SPRINGS,—to point out the different *routes* by which they may be reached,—and, at the same time, indicating in a concise manner the *various diseases* for which their waters have been advantageously used, has long been a desideratum with the Spring-going public.

In attempting to supply this want by the issue of this pamphlet, I shall not insert general certificates in proof of the value and medicinal adaptations of the waters to the various diseases for which they have been so long successfully used. The publication of such certificates, while they might be serviceable in some cases, would, nevertheless, be liable to mislead from the want of proper and scientific discrimination as to the precise nature of the cases given.

Mineral waters, to establish and perpetuate a valuable reputation, must be carefully kept *within the clear boundary of their power over disease*, and *within their true adaptations as curative agents*. To be efficiently employed, whatever be *the name* of the *disease* for which they are used, the *state of the system* at the time, and a proper is so in administration, so as to secure desired effects, are important points that cannot be safely ignored.

There are biasing partialities and prejudices in the whole certificate system that are sure to intrude, in despite of every effort to keep them out; and hence it is, that conclusions in such cases are apt to be too sweepingly made to be realized by those who rely upon them.

I have had abundant reason to know that great injustice is often done to suffering humanity, however unintentionally,—and ultimately too to mineral waters, by having them placed, through vague and extravagant certificates, upon a common platform with patent medicines. In this way, hopes are often created in the minds of invalids that are destined to sad disappointment; while the failure of the waters to accomplish all that had been injudiciously promised for them, causes their reputation unduly to suffer in public estimation.

Mineral waters possess great and valuable powers, and are in many cases superior to the medicines of the apothecary's shop; and when used under proper and judicious discrimination, are well qualified to assume a place in the great medical mind of the world, and, like well defined articles of the *Materia Medica*, stand prominently forth as most valuable resources of the healing art.

These views, are sanctioned by a sufficient amount of truth and importance, to influence me against the common practice of publishing certificates of cases of disease, unless such cases had been carefully *diagnosed* by a party competent to such duty, and so clearly described as to give them a fair claim to an intelligent public reliance. Upon this branch of the subject, therefore, I propose to rely upon the general results of public opinion formed from the use of the water for more than *ninety years*, and from my own professional experience in their administration for upwards of *thirty years* in cases, the *precise pathology and nature of which were carefully investigated in connection with the use of the waters in each case.*

LOCALITY OF THE SPRINGS.

The Various Routes by which they may be reached.

The *White Sulphur Springs* are situated on Howard's Creek, in *Greenbrier County, West Virginia*, and upon the western slope of the great Apalachian chain of mountains which separate the waters that flow into Chesapeake Bay from those that run into the Gulf of Mexico.

The situation of the Spring is elevated and beautifully picturesque, surrounded by mountains on every side. *Kates Mountain* is in full view, and about two miles to the south; to the west, and distant about one mile, are the *Greenbrier Mountains*, while the towering

Alleghany, in its magnificent proportions, is found five miles to the north and east.

The Spring is in the midst of the celebrated "Spring Region," having the "*Hot*," "*Warm*," and *Healing Springs* from thirty to thirty-five miles to the north; the "*Sweet*" and the *Sweet Chalybeate*, sixteen miles to the east; the "*Salt*" and the *Red Sulphur*, the one twenty-four, the other forty-one miles to the south.

Its latitude is about 37½° north, and its longitude 3½° west from Washington. Its elevation above tide-water is 2000 feet. The temperature of its waters is 62° Fah., from which they do not vary during the heat of summer or the cold of winter.

The Spring yields about *thirty gallons* a minute; and it is a remarkable fact that this quantity is not perceptibly varied during the longest spells of wet or dry weather. The quantity and temperature of the Spring being uniform under all circumstances, give a confidence, which experience has verified, of its uniform strength and efficiency.

The Spring is surrounded by mountain scenery of great beauty, and blessed with a most delightful summer and fall climate. Independently of the benefit to be derived from the waters, a better situation for the residence of invalids and delicate persons, during the summer and fall months, can scarcely be imagined. They have here the advantage of a most salubrious and invigorating air, and the most agreeable temperature—cool at morning and evening, and at no time oppressively warm. The thermometer ranges here, during the summer, between 55° and 65°, and rarely attains a greater height than 80° at any time of the day, while the atmosphere is so elastic and invigorating as to enable invalids to take exercise in the open air without inconvenience or fatigue.

ROUTES TO THE SPRINGS.

The *White Sulphur Springs* may now be properly designated as the present *Terminus* of the Chesapeake and Ohio Railroad in its progress west, as it is now certain that this road will be completed to this point during the present summer.

The completion of the road to the Springs renders them, directly or indirectly, approachable by rail from every quarter of the country

For the convenience, however, of those who are not acquainted with the localities and course of the Railroads in Virginia, I state—that the traveler by rail to the White Sulphur, from *any quarter of the country*, must necessarily make the town of STAUNTON, *in Augusta County, Va.*, a point in his travel From this place the distance to the White Sulphur, is about 100 miles. *Staunton*, is 120 miles northwest from Richmond, and immediately on the *Chesapeake and Ohio Railroad.*

☞ Travelers from any portion of the *East*, *North*, or *West*, make *Baltimore*, and *Washington*, points in the travel to the Springs. At *Washington*, they take the *Orange and Alexandria* road to *Gordonsville*: there they intersect the *Chesapeake and Ohio* road running to the WHITE SULPHUR, by way of *Staunton.*

☞ Those who wish to reach the Springs from the *South*, or *Southwest*, have a continuous chain of railroad to the springs, either by the way of *Richmond, Va.*, or by the way of *Knoxville, Tenn.*

If the Knoxville route is taken, the Spring visitant comes on the *Virginia and Tennesse Railroad* to *Lynchburg*; there changing cars takes the *Orange and Alexandria Railroad* to *Charlottesville*, a distance of 70 miles, where he reaches the Chesapeake and Ohio road about 40 miles east of *Staunton.*

☞ Persons visiting the Springs on the *Knoxville* route, will find a daily line of *Stage-Coaches* at the "Montgomery White" that run to the WHITE SULPHUR SPRINGS, 65 miles distant, passing by the celebrated *Salt Pond*, the *Red* and the *Salt Sulphur Springs*, and spending the night at the latter place.

☞ The *time* from Washington to the *White Sulphur* will be about 15 hours.

EXTENT and CHARACTER of ACCOMMODATIONS.

In the spring of 1857 this property was purchased by a company of gentlemen, residing principally in Virginia, who, in virtue of an act of the Legislature, associated themselves in a Joint Stock Company, under the name of the "*White Sulphur Spring Company.*"

In conformity with the public demand for a large extension of accommodations, the *Company* immediately entered upon a liberal and extensive system of improvement, designed alike to increase the

capacity of the property for the accommodation of visitors and at the same time to beautify and adorn the grounds. To these ends they have erected the largest building in the Southern country—its dimensions being 400 feet in length by a corresponding width, and covering more than an acre of ground. This building is appropriated for *Receiving rooms*, *Dining room*, *Ball room*, *Parlors*, *Lodging rooms*, etc. The *Parlor* is one of the most elegant and spacious saloons in America, being half as large again as the celebrated *East Room* in Washington. The *Dining room*, is one of the largest in the world, being upwards of 300 feet long by a corresponding width, and conveniently seating 1200 persons.

The Company has also built a large number of handsome *Cottages* for families.

In several respects the grounds have been greatly improved, particularly by the construction of broad Serpentine walks in various directions through the lawns, and by widening and extending the romantic and popular "*Stroll*" known as the "Lover's Walk." With these improvements, together with a new and capacious *Bathing Establishment*, and the removal of many of the old buildings to new locations, by which the *Lawns* are enlarged and adorned, the property, alike in capacity, in convenience, and in the elegance of its arrangements, exhibits a new and greatly improved appearance.

ANALYSIS OF THE WATERS.

The White Sulphur was analyzed in the winter of 1842 by Professor Hayes, of Boston, from a few bottles of the water sent to his laboratory the preceding fall. From his report, 50,000 grains (about seven pints) of this water contains in solution 3·633 water grain measure of gaseous matter, or about 1.14 of its volume, consisting of

Nitrogen gas	1·013
Oxygen gas	·108
Carbonic acid	2·244
Hydro-sulph. acid*	·068

One gallon, or two hundred and thirty-seven cubic inches of the

* It must be borne in mind that this water was examined by Prof. Hayes several months after its removal from the spring, and consequently after it had parted with a large portion of its free hydro-sulph. acid gas.

water, contains 19·739-1000 cubic inches of gas, having the proportion of

Nitrogen gas	4·680
Oxygen gas	·498
Carbonic acid	11·290
Hydro-sulph. acid	·271

Fifty thousand grains of this water contain 115·735-1000 grains of saline matter, consisting of

Sulphate of lime	67·168
Sulphate of magnesia	30·364
Chloride of magnesium	·859
Carbonate of lime	6·060
Organic matter, (dried at 212°,)	3·740
Carbonic acid	4·584
Silicates, (silica 1·34, potash ·18, soda ·66, magnesia, and a trace of oxide of iron,)	2.960

Professor Hayes remarks that the organic matter of the water, in its physical and chemical character, differs essentially from the organic matter of some thermal waters—in contact with earthy sulphrates at a moderate temperature, it produces hydro-suphuric acid, "*and to this source that acid contained in the water may be traced.*" He adds:

"The medicinal properties of the water is probably due to the action of this organic substance. The hydro-sulphuric acid resulting from its natural action, is one of the most active substances within the reach of physicians, *and there are chemical reasons for supposing that after the water has reached the stomach, similar changes, accompanied by the product of hydro-sulph. acid, take place.*"*

Professor *Wm. B. Rogers* also analyzed this water, with the following results:

Solid matter procured from 100 cubic inches, dried at 212° Fah., consisting 65·54 grains.

Sulphate of lime	31·680	grains.
Sulphate of magnesia	8·241	"
Sulphate of soda	4·050	"
Carbonate of lime	1·530	"
Carbonate of magnesia	0·506	"
Chloride of magnesium	0·071	"
Chloride of calcium	0·010	"
Chloride of sodium	0·226	"
Proto-sulphate of iron	0·069	"
Sulphate of Aluminæ	0·012	"
Earthy phosphates, a trace.		
Azotized organic matter blended with a large proportion of sulphur, about	0·005	"
Iodine, combined with sodium or magnesium.		

*See Chapter III., on the "*Relative virtues of the saline and gaseous contents of the White Sulphur Water,*" in the "*Mineral Waters of the United States and Canada.*"

Volume of each of the gases in a free state, estimated in 100 cubic inches:*

Sulphuretted hydrogen	0·66
Nitrogen	1·88
Oxygen	0·19
Carbonate acid	3·67

MEDICINAL CHARACTER OF THE WATER.

The distinctive medicinal influences of this water upon the system are *Cathartic*, *Diuretic*, *Sudorific*, and *Alterative*.

Some *cathartic* and *diuretic* effect, as well as a distinct determination to the *skin by sweating*, is easily induced under its use, in the great majority who drink it. But the most decidedly controlling effect of the water over diseased action, and that which, more than every other, gives to it its highest and most valuable character as a remedy, is its ALTERATIVE POWER, or that peculiar action by which it effects salutary *changes* or *alterations* in the blood, in the various secretions, and upon the various tissues of the body.

The certain effects of the water in *stimulating glandular secretions*, *desolving chronic inflammations*, *overcoming obstructions*, and throwing off offensive *debris* from the diseased system, leave no doubt of its distinctive and active *alterative powers*. Indeed, no article of the Materia Medica has more decided alterative effects.

I desire, especially, to call the attention of physicians, and the intelligent public generally, to this *distinctive and remarkable quality of the water*. In this, more than in anything else, it differs from other mineral waters. Many other waters are found to possess valuable alterative power, and with an equal or greater cathartic or diuretic action, but none have yet been shown to be so *certainly*, *promptly*, and *powerfully alterative* upon the human system.

Some of my unprofessional readers may desire to know the precise meaning that is attached to the term ALTERATIVE, in a medical sense. This term simply means to *alter* or *change*; that is to alter or change the chemical composition of the blood, the secretions of the glands and the various secretory organs and surfaces, the removal of obstructions from the glands or minute vessels which occur in conges-

* 100 cubic inches amount to about three and a half pints.

tions, irritations, and inflammations; thus restoring the blood and the general organism to their natural condition, and to the performance of their natural functions.

I claim that the water has these effects by being absorbed, or, in other words, entering into the great circuit of the circulation, and thus exercising the specific or peculiar action of its constituents in promoting the various secretory and excretory processes, and thereby restoring the diseased system to a physiological condition.

Such effects and changes, wrought in the sick body, are obviously an *alteration*, and the remedy that produces them is an *alterative*.

This is but a part of a medicinal alterative, but it conveys a sufficient idea of its nature.

The water is also remarkable for its power in *reducing the force and frequency of the pulse*, when unduly excited. Its influence in this respect should be regarded, not as a *direct sedative effect* of the agent, but as the result of its potency in abating general excitement, resolving inflammations, and removing obstructions, thus bringing back the system to its normal condition.

Experience in the administration of these waters, has abundantly established the fact of their *direct*, and *positive* influence in controlling and eradicating many diseases. Their effects, when properly used, are to revive the languishing circulation, to give a new direction to the vital energies, re-establish the perspiratory action of the skin, bring back to their physiological type the vitiated or suppressed secretions, provoke salutary evacuations either by urine or stool, or by transpiration; they bring about in the animal economy an internal transmutation, *a profound change*. Entering the circulation, they course through the system, and apply the medicinal materials which they hold in solution, in the most minute form of sub-division that can be conceived of, to the diseased surfaces and tissues; they reach, and search the most minute ramifications of the capiliaries, and remove the morbid condition of these vessels which are so commonly the primary seats of disease.

It is thus that they relieve chronic disordered action, and impart natural energy and elasticity to vessels that have been distended either by inflammation or congestion, while they communicate an energy to the muscular fibre and to the animal tissues generally,

which is not witnessed from the administration of ordinary remedies. It is thus that they produce the *alterative effect*, the "*profound change*" upon the system, of which I have been speaking.

It may be well to remark, that all mineral waters, to a greater or less degree, are stimulants, and consequently are inapplicable to the treatment of *acute* or *highly inflammatory* diseases. This is especially true of the White Sulphur, particularly when drunk fresh at the spring and abounding in its stimulating gas. It is true that when its volatile gas has flown off, it becomes *far less stimulating*, and may be used with safety and success in cases to which in its *perfectly fresh state* it would be unadapted. But even in its least stimulating form, it is inadmissible for excited or febrile conditions of the system, and especially, in high inflammatory action, at least until the violence of such action has been subdued by other agents.

POPULAR ERRORS in the USE of MINERAL WATERS.

Before entering upon the consideration of the diseases for which the White Sulphur Water may be beneficially employed, I desire for the benefit of invalids who may visit these, or other Mineral Waters, to make a few remarks with the view of correcting some, at least, of the *popular errors* that exist in connection with the use of such waters. And I trust that a life devoted to the investigation of this general subject, will relieve me from any appearance of egotism in doing so.

I regret that the limited space within which I desire to confine this publication, will not allow me to say as much upon the subject as I could wish to do.

The first of the *popular errors* to which I call attention has reference to the *Time invalids should use mineral waters.*

There is an opinion in the minds of not a few, that such waters should not be drunk longer than a *given number* of days, and, that after such time, they are prejudicial rather than beneficial. *This is an error.* There is *no specific time* during which invalids, speaking generally, should use this or any other mineral water. The time during which all such waters should be used, depends upon the *nature of the case, the manner in which they are used*, the *susceptabilities of the system*, and their *effects* upon the organism and the disease.

There are periods, but *uncertain periods*, in the use of the *White Sulphur Water*, when it ought to be suspended, or discontinued; but such periods can only be judged of by *effects*, and not from any number of days during which it may have been drunk.

If the water be not adapted to the disease, and to the existing state of the system, of course it ought not to be used at all; but if it be adapted, it ought to be persisted in, until it produces its *alterative* or proper curative effects.

It happens in many cases, that some appropriate management is essential to prevent the water from having vagrant and undesirable operations, and to hasten its speedy and good effects; but it would be in vain to expect its use to result in a cure, until it has been properly employed for a *sufficient length of time*, (and this irrespective of the number of days,) to produce the *desired effects*.

From *two* to *eight* weeks is the range of time, within which it may be made to produce all its good effects, or bring the system into such a condition as insures a return to health.

The *second popular error*, is that of hastily *changing from spring to spring*, without staying sufficiently long at any one, to produce lasting or permanent good impressions upon the disease.

A restless disposition often causes invalids to fly from one spring to another, in the vain hope of greater good, when very probably the time they fruitlessly spent at several different springs, would have been sufficient to cure them at any one of them, that might be even tolerably adapted to their condition.

This criticism does not apply to mere pleasure seekers. They may properly go from spring to spring, and spend their time just where they are the happiest.

But it is not so with invalids, who *have something for* the waters to do. They should wisely select the waters best adapted to their cases, and use them properly and perseveringly, until their unadaptedness is shown, or until they have produced such *effects* as the nature of the case demands. This being done, they can then with propriety resort to such other waters, or baths, as may be best adapted to their new condition.

The *popular errors* manifested in the *hap-hazard* and *experimental* methods of using mineral waters, are too numerous to be particularly

considered in the space allotted to this subject, but they are too important to be entirely overlooked.

Potent mineral waters, that have been extensively used for many years, have, it is reasonable to suppose, established with those who have experienced or long observed their effects, definite, and well defined laws of operation upon the human system; or, in other words, have established certain *hygienic* and *theraputic* laws, by the observance of which, they may be taken understandingly, safely, and in such manner as to secure their sanative effects without incurring unnecessary delay, or risk, from improper administration.

Nevertheless, many *serious invalids*, and those too who are desirous of speedy relief, will, with the utmost uncertainty of the correctness of such a course, enter upon the use of such waters entirely in an *experimental way*, and with as much disregard of the known laws of their administration, as if no such laws existed.

Such *experimentalists*, by *inefficient* or *untimely* dosing, or far more common, by *overdosing*, sometimes, by using the remedy when they are under a temporary excitement, or other influences that prevent its good effect, (and which by a little precaution might speedily be removed,) or by using it too *fresh* when it ought to be used *stale*, allow themselves either to be positively injured, or at least deprived of the benefits that might have resulted from its proper administration.

Such tentative drinkers, may now and then adopt the best course that could have been pursued, and all will go well; but in no few instances it happens, that grave mistakes are made, and real injury effected. But if no absolute injury shall have been done, it very commonly results that such experimentalists waste much time without deriving compensating advantages; and often, after a week or two of profitless experimenting, perceive the necessity of ceasing such a course, and begin the use of the agent *de novo* as it were, and as if they had never before taken it at all, and without having derived any advantage from the week or two it may be, that they had been improperly using it.

Invalids intending to use mineral waters for the treatment of their diseases, should first satisfactorily ascertain what particular water is best calculated to cure their maladies, and before entering upon its

use, acquaint themselves with the proper way of using it, and with the general management and precautions necessary to be observed while under its use, not only in reference to the *quantity, and times*, of drinking, but also in reference to *Baths*, the manner and periods of taking them, together with a proper *general rule of living* as relates to *diet*, *exercise*, and *exposures*, while they are under agencies, and in a climate, to which they have not been accustomed. Thus properly informed, and prudently conforming to judicious instructions, they may reasonably hope to secure all the advantages that can be derived from such agents.

The strength of the natural appetite for the good things of this world, and the *dicta* of fashion, but too commonly override the most judicious medical advice at a fashionable watering place, in reference to *Diet* and *Dress*. Still, I cannot conscientiously withhold this well meant warning to the serious invalid at such places, to *eat prudently*, irrespective of the inducement which an active appetite may offer, and to *clothe warmly* and avoid *night exposure*, whatever fashion may demand or temptation crave.

DISEASES TO WHICH THE WHITE SULPHUR WATER IS APPLICABLE.

For want of space, I can only give a mere synopsis of the diseases for the cure of which the White Sulphur waters have been long and successfully employed, referring my readers who desire more particular information upon this subject, as well as for the *proper method of using the waters in the various diseases, to my recent volume on the "Mineral Waters of the United States and Canada."*

DYSPEPSIA.

This very common and annoying disease, the especial scourge of the sedentary and the thoughtful, whether existing under the form of irritation of the mucous surface of the stomach, vitiation of the gastric juice—or under the somewhat anomalous characteristic of *Gastralgia*, is treated with much success by a proper course of the White Sulphur water.

The apprehensive and dejected spirit that finds no comfort in the present, and forbodes evil only in the future; the hesitating will that

matures no purpose, and desponds even in success; the emaciation of frame and haggardness of visage; the ever present indurance, and all the imaginary and real ills that torture the hapless dyspeptic, are often made to yield to alterative and invigorating influences that that a few weeks judicious use of the waters establish.

Administered alone, *in every form* of this disease, (for under the name *Dyspepsia* we have several *forms of stomach disease* essentially differing from each other, and requiring different modes of treatment,) its curative powers may not always be so marked; but in several varieties of the disease, and those indeed which we most often witness, it deserves the very highest praise that can be conferred upon any remedy. In cases of this disease in which the *Liver* is implicated, occasioning slow or unhealthy biliary secretions, a state of things that often exists, the water may be used with especial advantage. To effect *permanent* or lasting cures in Dyspepsia the waters should always be pressed to their complete *alterative* effects upon the system.

CHRONIC IRRITATION OF THE MUCOUS MEMBRANE OF THE STOMACH AND BOWELS.

The largest class of invalids that resort to our mineral fountains for relief are those afflicted with *abdominal irrations*, and especially with *Irritation of the Mucous Coat of the Stomach and Bowels.*

These irritations are occasionally so masked by a super-added nervous mobility as to conceal their true character from the sufferer, and sometimes from his medical advisor. The disease is far more common in late than in former years. The number of cases at the White Sulphur has been, I am sure, more than triplicated within the last few years. It may be induced by any of the numerous causes whose tendency is to derange the digestive, assimilative, and nervous functions; and is often connected with some indigestion, irregular, or costic bowels, with restlessness and unhappy forebodings of impending evils. I have much confidence in the waters in such cases when prudently and cautiously used until they produce their *alterative* effects.

LIVER DISEASE.

Chronic disease of the liver, in some form or other, is a very common disease of our country, especially in the warm latitudes and

miasmatic districts. Very many affected with this complaint, have annually visited the White Sulphur for the last fifty or sixty years. In no class of cases have the effects of the waters been more fully and satisfactorily tested than in *chronic derangements of the liver.*

I cannot better serve the end I have in view of imparting information of the remedial powers of these waters in this class of disease, than by quoting a few paragraphs from my volume on the "*Mineral Springs of the United States and Canada.*"

"The *modus operandi* of sulphur water upon the liver is dissimilar to that of mercury, and yet the effects of the two agents are strikingly analogous. The potent and controlling influence of the water over the secretory function of the liver must be regarded as a specific quality of the agent, and as constituting an important theraputic feature in the value of the article for diseases of this organ. Its influence upon the liver is gradually, but surely to unload it when engorged, and to stimulate it to a healthy performance of its functions when torpid.

"The control which this water may be made to exercise over the liver in correcting and restoring its energies, is often as astonishing as it is gratifying—establishing a copious flow of healthy bile, and a consequent activity of the bowels, imparting a vigor to the whole digestive and assimilative functions, and consequently, energy and strength to the body, and life and elasticity to the spirits.

"For many years I have kept a '*Case book*' at the White Sulphur, and have carefully noted the influences of the water upon such cases as have been submitted to my management. Among the number, are several hundred cases of chronic affections of the liver, embracing diseases of *simple excitement, chronic inflammation, engorgement,* and obstructions of the biliary ducts, etc. These cases were treated either with the White Sulphur alone, or aided by some appropriate adjunctive remedy; and, in looking at the results, I must be permitted to express a doubt, whether a larger *relative* amount of amendments and cures, have ever been effected by the usual remedies of the medical shop. This I know is high eulogy of the water in such diseases. It is considerately made, and is not higher than its merits justify."

When *Schirrhosity* of the liver is suspected, the water, if used at

all, should be used under the guards of a well-informed medical judgment; for in actual Schirrhosity, if it be pressed beyond its primary effects upon the stomach and bowels, it is very decidedly injurious.

JAUNDICE.

This is a form of liver disease in which obstructions prevent the free egress of the bile from the gall bladder along its natural channels, and hence occasions its absorbtion into the general circulation.

In cases of jaundice, in which the obstructing cause is inspissated bile, or very small *calculi*, or when occasioned by inflammation or spasm of the gall-ducts themselves, the White Sulphur water, as might be expected from its influence over the liver, is used with the happiest results.

Indeed, the individuals affected with incipient or confirmed jaundice, and when the liver is free from Schirrhus, cannot place too much confidence in the use of the White Sulphur water and *Baths*, with the occasional use of mild adjunctive means to aid in its speedy action upon the liver and skin. Thus judiciously employed, and for a sufficient length of time, it invariably proves successful, either in curing the case, or in bringing the system into the condition under which a cure speedily results.

CHRONIC DIARRHŒA.

In *Chronic Diarrhœa*, especially where the mucous coat of the bowels is principally implicated, and, still more, when the case is complicated with derangement of the stomach and liver, the water is often employed with very gratifying effects.

While the water, properly taken, is a most invaluable remedy in Chronic Mucous Diarrhœa, in no other disease is prudence and caution more eminently demanded in its administration, and especially for the few first days of using it. When prudently and cautiously prescribed in such cases, it is not only a perfectly safe remedy but also eminently curative in its effects. Many of the most satisfactory results that I have ever accomplished by the prescription of the White Sulphur water, have been in cases of *Chronic Mucous Diarrhœa*.

Serous Diarrhœa of *chronic character*, requires still greater caution in the early use of the water than the mucous form to which I have been referring; and while the waters, when carefully introduced, constitute a valuable remedy in such cases, they will, if too largely taken, aggravate the worst symptoms of the disease.*

COSTIVENESS.

Habitual costiveness is a state of the system in which the water has been extensively employed. When the case depends upon depraved or deficient biliary secretions, much reliance may be placed upon the efficiency of this remedy if it be carried to the extent of fully *alterating* the system.

PILES.

The use of mild laxatives in *hæmorrhoids* has long been a favorite practice for their relief. The beneficial effects of the water in this disease, is probably to some extent due to its laxative power, but still more, I apprehend, to its *alterative effect* upon the liver through which the hæmorrhoidal vessels are favorably impressed.

DISEASES OF THE URINARY ORGANS.

The White Sulphur waters are used with very good effects in *Gravel;* indeed, they almost invariably palliate such cases, and frequently, in their early stages, entirely cure them.

Incipient calculus affections are relieved by the water pretty much in proportions as it corrects the digestive and assimilating functions, improves the blood, and brings the general economy into a natura type, preparing the kidneys to resist foreign encroachments upon their functions, and to elaborate from healthy blood, proper and healthy secretions.†

Chronic inflammation of the kidneys, as well as similar affections of the *bladder*, and *uretha*, are often successfully treated by a judicious use of the waters.

Diabetes is a form of disease in which the waters have occasionally been used with excellent effect.

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* See the details of several interesting cases in the "*Mineral Waters of the United States and Canada.*"

† See "*Mineral Waters of the United States and Canada.*"

Spermatorrhœa, often painfully implicating the nervous system, and producing extreme debility not only of the sexual organs but also of the general system, is often greatly benefitted at these springs.

This disease is generally found complicated with a condition of the *skin* and *glandular organs*, and not unfrequently of the mucous surfaces, that eminently require the aid of *alterative remedies*. In all such complications the waters are found very valuable as a primary means, preceding and preparing the system for the use of more decided tonic remedies.

FEMALE DISEASES.

In *female diseases,* in their various chronic forms of *amenorrhœa*, or suppressed menstruation, *dysmenorrhœa*, or painful menstruation, *chlorosis* and *leucorrhœa*, the waters of the White Sulphur have been much employed. When the cases have been judiciously discriminated, and were free from the combinations and states of the system that contra-indicate the use of the waters, they have been employed with beneficial results.

CHRONIC AFFECTIONS OF THE BRAIN.

It is only since the introduction of the custom of using the water in its *ungaseous form,* (near thirty years ago,) that it has been taken successfully, or even tolerated by the system in chronic inflammation of the brain. I need, therefore, scarcely apprise my readers that it is only in its strictly ungaseous form that it should be used in such cases, and then in a careful and guarded manner. Thus prescibed I have, in several instances, found it beneficial.

NERVOUS DISEASES.

Neuralgia, in some form or other, has become a very common disease in every part of our country; and the number that visit the White Sulphur suffering with this *protean* and painful malady is very considerable.

Sometimes, this disease exists as a primary or independent affection, but far more frequently, as a *consequence* of visceral or organic derangements. Where such is found to be the case, the White Sulphur waters are used with the very best results. As an *alterative*, to pre-

pare the neuralgic for receiving the more tonic waters to advantage, it deserves the largest confidence by those afflicted with this annoying malady.

PARALYSIS.

The number of *paralytics* that resort to the White Sulphur is large, and their success in the use of the waters various. Cases resulting from dyspeptic depravities are oftener benefited than those that have resulted from other causes. In almost every case, however, some benefit to the general health takes place, and sometimes an abatement of the paralysis itself.

BREAST COMPLAINTS.

In *tubercular consumption*, whether the tubercles be incipient or fully developed, the White Sulphur water should not be used. Its effects in such cases would be prejudicial.

But there are other forms of *breast complaints* in which the waters have been found valuable, particularly in that form described as

SYMPATHETIC CONSUMPTION.

* This form of breast complaint is the result of morbid sympathies extended from some other parts of the body, and more commonly from a diseased stomach or liver. The great *par vagum* nerve, common to both the stomach and lungs, affords a ready medium of sympathy between these two organs. In protracted cases of dyspepsia, the stomach often throws out morbid influences to the windpipe and surfaces of the lungs, occasioning *cough*, *expectoration*, *pain in the breast*, and many other usual symptoms of genuine consumption. So completely, indeed, does this *translated* affection wear the livery of the genuine disease, that it is often mistaken for it.

This form of disease comes often under my notice at the Springs, and I frequently witness the happiest results from the employment of the water in such cases; and the more so, because its beneficial effects resolve a painful doubt that often exists in the mind of the patient as to the true character of the disease.

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* See "*Mineral Waters of the United States and Canada.*"

BRONCHITIS.

This affection is often met with at the Springs, sometimes as a primary affection of the bronchia, and often as a result of other affections, and especially, of derangements of the digestive and assimilative organs. In such *translated* cases, we frequently find the *bronchitis* relieved in the same degree that the originally diseased organs are benefited.

CHRONIC DISEASES OF THE SKIN.

The various chronic diseases of the skin are treated with much success by a full course of the White Sulphur waters, in connection with a liberal course of *warm* or hot sulphur baths.

There is a chronic form of *erysipelas*, occurring at irregular intervals, and most commonly attacking the face or the extremities, that I have treated with very good success by the White Sulphur water.

RHEUMATISM AND GOUT.

The *rheumatic* and the *gouty*, are *habitues* of the White Sulphur. The well established reputation of the waters in such cases, attracts no small number of persons laboring under one or the other of these affections.

The primitive reputation of the water, and that which at an early day directed public attention to its potency, was derived from its successful employment in rheumatism. The reputation thus early acquired, has not been lost, but, on the contrary, established and confirmed by its successful use for three quarters of a century.

In most rheumatic cases, the employment of *warm* or hot *sulphur baths* constitutes a very valuable adjunct in their treatment.

With the sulphur water as a drink, and the use of the hot *tub*, *douche* and *sweating* baths of the same water, this place offers the strongest inducements for the resort of persons afflicted with chronic rheumatism that can anywhere be found.

In proportion as the waters impress the digestive and assimilative organs they benefit *gout*. As palliative in this disease, they are always employed with benefit.

CHRONIC POISONING FROM LEAD

Is very advantageously treated by a full course of the water and baths. Used with sufficient persistency, they may well be regarded as the most reliable remedy to which persons thus afflicted can have recourse, and to such I earnestly recommend a trial of them, the more especially, because the ordinary remedies in such cases are admittedly very unreliable.

SCROFULA.

Sulphur waters have long been held in reputation in the treatment of scrofula. Some of the English physicians have thought such waters superior to any other remedy in scrofula. Dr. Salisbury, of Avon, New York, speaks favorably of his experience of their use in such diseases. In the early stages of scrofula the White Sulphur has often been used with decided advantage, but in the confirmed stages of the disease I do not consider them at all equal in curative power to some other mineral waters in this region.

MERCURIAL DISEASE AND SECONDARY SYMPTOMS OF LUES.

In that enfeebled, susceptible, and very peculiar condition of the system, often found to exist as the result of a long-continued or injudicious use of *mercury*, and in what is commonly known as the *secondary form of lues*, the White Sulphur water, when carried to its full alterative effects, displays its highest curative powers. After long experience of the use of the waters in the peculiar forms of disease under consideration, I have no hesitation in saying, that if called upon to designate the particular affection or state of the system in which the White Sulphur water is most certainly efficacious, I would not hesitate to name *mercurial diseases* and *secondary syphilis;* because the water in such cases exerts a specific agency, and more certainly brings relief to the sufferer than any other known remedy. This is strong praise of the remedy in these diseases, and nothing but long and successful experience of its value in such cases could induce me to award it.

I have no hesitation in saying to those who are so unfortunate as to be the subjects of the diseases embraced under this head, that they may have in these waters, when properly and fully used, in connection with warm sulphur bathing, a reasonable hope of a permanent

cure, that they cannot have from the use of any other remedy known to the profession.

I have heretofore alluded to some diseases and states of the system in which these waters should *not be used*. In addition to what I have already said upon that subject, I now remark that they should not be used in *scirrhus* or *cancerous* affections, whether *internal* or *external*, nor in *hypertrophy*, or *morbid enlargements* of the heart. In either of the cases supposed, their effects, especially their full effects, would be prejudicial.

CHALYBEATE SPRING.

About forty rods from the White Sulphur, is a *Chalybeate Spring* in which the iron exists in the form of a *carbonate of iron*, the mildest, least offensive, and ordinarily the most valuable form in which ferruginous waters are found.

For the last fifteen years this water has been considerably used by the class of visitors whose diseases required an *iron tonic*, and its effects have realized the rational hopes that were indulged in it.

BATHS AT THE WHITE SULPHUR.

Warm and *hot bathing*, especially in highly medicated waters, is a remedy of leading importance in a large number of the cases that resort to mineral waters for relief.

The water used for bathing at the White Sulphur flows from the *Sulphur Spring of which the visitors drink*. When we look at the analysis of this water and find it to contain about one hundred and fifty *grains of* active *medicinal salts to the gallon,* we cannot fail to see that, so far as the *medication of waters* can favorably affect the *bath* for which they are used, that the White Sulphur baths have the strongest claim to confidence, inasmuch as no other waters in America that are used for bathing, except the Washita Springs, in Arkansas, are so highly impregnated with mineral salts.

These baths, in connection with the drinking of the sulphur waters, although not required in every case, are a matter of the utmost importance in a large number of cases in aiding to produce the best effects of the waters.

Impressed with the great value, in fact the absolute necessity to some invalids, of using such baths in connection with the drinking of the water, the proprietors of the Springs have recently greatly

enlarged and so remodeled their *bathing establishment* as to make it in every respect satisfactory, it is believed, to those who may desire to avail themselves of its use.

The *bathing-house* is large, affording ample accommodations for the bathers. The bathing-rooms are spacious, airy, and comfortable, and in addition to the usual *tub baths*, they have erected *douche* baths for the application of streams of *hot* or *warm* water to local parts of the body, and have set apart rooms arranged for receiving *sweating* baths.

The construction of *douche* and *sweating baths* of sulphur water, to be employed under proper circumstances, in connection with the internal use of the water, is a matter of the utmost importance to the successful treatment of numerous cases that resort here for relief.

The new and improved method of heating the water for bathing, deserves to be especially noted. This is effected by *steam* in the vessel in which it is used, and is a great improvement over the old method of heating mineral waters for bathing. Under the old plan of heating in a boiler and thence conveying the water to the bathing tub, much of its valuable saline matter was precipitated and lost. By this improved method of applying steam to the water in the tub, the heat is never so great in raising the water to the bathing point, as to cause any important precipitation of its salts; hence, they are left in their natural suspension in the water to exert their specific effect upon the bather. Not only so, by this improved method hot steam may be let into the tub from time to time, as the water cools, so as to keep it essentially of the same temperature during the entire period of bathing, a consideration often of no small importance. This method of heating mineral waters in the tub in which they are used, in connection with the *douche* and *sweating* baths, brings *hot* and *warm bathing* at this place in favorable competition with bathing at naturally hot and warm fountains, and promises to be productive of the same good effects that are experienced from bathing in such fountains.

SOCIETY AND ITS AMUSEMENTS.

Next to the medicinal value of the water of the White Sulphur, and the invigorating climate of the place, the company that annually assembles there is most worthy of notice.

The prestige of the White Sulphur for all that is elegant and refined in society is coeval with its early history. For many years it has been the great central point of reunion for the best society of the South, North, East, and West, that here mingle together under circumstances well calculated to promote social intercourse and to call out the kindliest feelings of our nature.

The *Cottage system* that has been introduced, although new to American watering places, has proved a complete success, and greatly contributes to the home-like comforts and the sociality of the numerous families assembled here.

Society seems here to meet on common ground, and the different shades of feeling influencing it at home are laid aside, while each individual promotes his own happiness by contributing to the happiness of others.

Here is to be found the statesman who, worn down with labor, and his mind unstrung by the cares of office, seeks from the bracing air, the picturesque scenery and the genial company, not less than from the health-giving waters, that recuperation of his wasted energies in vain sought for elsewhere. Here, too, is found the man of letters, seeking rest from thought, and strength for future effort. The poet, too, is here to quaff vigor from the sparkling fountain, and new images of beauty from nature's lavish stores that are spread around him; and here, too, come in crowds those who have ever plumed the poet's fancy to its sublimest flights—beauteous woman—by her presence brightening every prospect, and gracing every scene. Following naturally in her train, come those who ever love to bask in beauty's smiles, and find in such scenes the happiest of their youthful hours. Here, too, congregate the reverend clergy, the doctor, the lawyer, the judge, wearied with the burdens of the bench; the man of commerce, the financier, the thrifty planter, the sturdy farmer, and the retired man of wealth and ease. These, reckoned by thousands, make up the company that annually give tone and character to the White Sulphur, and make it at once the Athens and the Paris of America.

The amusements are various in kind and degree. No sketch can give more than a faint shadowing of the pleasures of a visit to the Springs. The freedom from care, the relaxation from bonds which

have fettered us to the treadmill of business; the pure mountain air, every breath of which swells the veins and makes the blood tingle with delight; the wild mountain scenery awakening new thoughts of the grandeur of creation, and the mighty power of God; the amenities of social intercourse, relieved from those necessary but vexatious rules of etiquette which hem in fashionable life at home; all these combine to render a visit to the White Sulphur an epoch in life to be looked forward to, and back upon, with pleasurable emotions.

The weary pilgrim, coursing over the burning sands of the East, does not hail the sight of an oasis in mid-desert with more joy than the *habitues* of the "White," worn down by cares or trouble, welcome the first glimpse of the sparkling fountain, and the verdant lawns encircled by cottage homes; to him they promise rest, comfort, health; while to others they tell of pleasures past and joys to come. And why? For answer, let us briefly sketch the scenes of a single day at the Springs.

The morning has dawned, the forest songster, in saluting the opening day, has softly wakened the sleeper; the full round face of the sun soon appears above the neighboring mountain peak; the silvery vapor glides upward from the vale beneath, the fleecy clouds are gone, and the dewy fragrance of the morning air invites to active exercise. The visitors now gather around the health-giving fountain, and after quaffing its waters, wend their way to the morning meal. This over, the business of active enjoyment for the day begins.

The pleasant walks that penetrate the lawns and environ the grounds invite many to healthful exercise. The billiard saloon, with its numerous tables, entices many votaries; the bowling alleys soon resound with the merry laugh of youth and beauty, and thus the hours glide swiftly away; while from another portion of the grounds is heard the clear, keen report from the pistol gallery, telling how promptly Young America is preparing to avenge his insulted honor.

The beautiful rides and *drives*, with their glorious mountain and intervale scenery, attract some, while the quiet game, the alluring book, or the pleasant companion solace many others. Thus theyf take no note of time, save from its loss, until the warning sound o the dinner bell rings forth the noontide hour, calling to prepare for

the mid-day meal. Again the fountain is thronged, and then to the sound of rich-toned music, discoursed by a well-trained band, the crowd, after the hour of preparation has elapsed, assemble in the immense and well-furnished drawing-room for a brief social reunion, before partaking of the great meal of the day. Dinner over, the drawing-room again becomes the centre of attraction. In this room, during the crowded season, are each day brought pleasantly together a gay and richly-dressed assembly, excelled in beauty, manliness and dignity by no other crowd ever assembled within the broad limits of our common country. Here congregate the fairest of the fair from every State, and one can gaze, and gaze on beauty until the heart reels in its very fullness.

The company, wearied with converse or the promenade, retire to their cottage homes, or to the inviting shade of the wide-spread oaks, underneath which, in by-gone years, the savage danced or the antlered monarch of the forest tossed his crest, now given up to the happy crowd who in genial converse while the hours away until the lengthened shadows and the fragrant air again invite to the *walk*, the *ride*, the *drive*, or other active exercise. Then is heard the summons to a social reunion at the tea table, after which the spirit-stirring music calls the young and the gay to the giddy whirl of the ball-room. Here pleasure reigns supreme, the heart-toned laugh, the witty word, the amiable repartee, all tell that those assembled here are just sipping the bubbles from the overflowing cup of joy.

Nowhere else can such a scene be witnessed; nowhere else can such a scene be more innocent than here. Thus flit away the glad hours until the waning night bids to calm repose.

Such is, as it were, a shadowy outline of a day at the White Sulphur.

But I cannot close this sketch without mentioning another phase of society at the Springs, and one that must commend itself to every well-ordered mind. I allude to the respectful observance, by the company generally, of the Sabbath day. Throughout this entire day a profound quiet pervades the grounds; and the places of worship are thronged by full and attentive congregations. Nothing could better evidence the conservative influence of society here than the respectful and reverential attention with which the vast concourse honor the sacred claims of the Sabbath.

ANNOUNCEMENT.

THE UNDERSIGNED, LESSEES OF THE

WHITE SULPHUR SPRINGS,

Announce to the public that the SPRINGS will be open for the reception of Visitors, for the season of 1869, on the

FIRST DAY OF MAY

With the extensive Improvements already completed and in progress, we will be prepared to accommodate at least *fifteen hundred* guests.

HOT AND WARM SULPHUR BATHS,

So eminently efficacious in many cases, will always be at the command of the Visitor.

One of the best City BANDS OF MUSIC will be in attendance to enliven the LAWNS and BALL ROOM.

An extensive LIVERY, for the accommodation of Guests, will be kept on the premises.

The public may be assured that neither efforts nor expense will be spared to make these Springs merit a patronage as liberal as they have heretofore so constantly received.

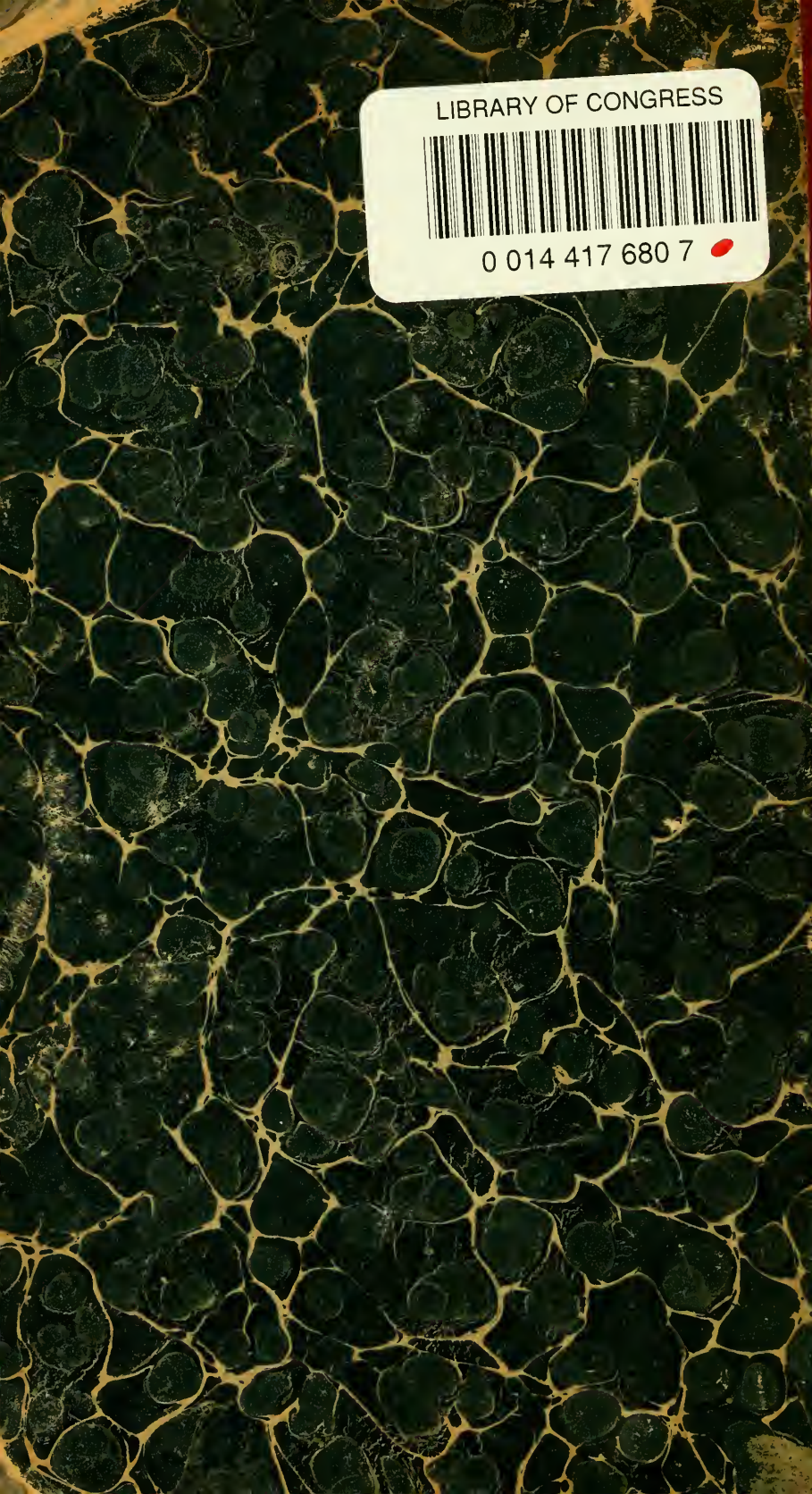
☞ The Chesapeake and Ohio Railroad, now in rapid process of completion, will be running to CALLAGHANS, sixteen miles distant from the Springs, by the first of May, and will be finished to the Springs by the first of July; so that travelers from any part of the United States can reach this place by continuous railroad lines.

☞ A Telegraph Line will be extended to the Springs with the completion of the Railroad.

☞ We have the pleasure to inform those who design to visit the Springs that PROF. J. J. MOORMAN, well known as the author of several valuable books on the MINERAL WATERS, and of the late work on the "MINERAL SPRINGS OF THE UNITED STATES AND CANADA," and for upwards of *thirty years* the PHYSICIAN TO THE WHITE SULPHUR, will be found at the Springs in that capacity, and that he has associated with him in the practice, DR. F. B. FUQUA, formerly of Staunton, Va.

PEYTONS & CO.

WHITE SULPHUR SPRINGS, W. VIRGINIA,
March 1st, 1869.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